

# PVOH for paper applications

# The solution for your most demanding needs

Kuraray Poval™ and Exceval™ are soluble polymers that dissolve in water to give viscous transparent solutions.

Applications cover a broad spectrum of uses in the paper, textile, construction and adhesives industries as well as in the cosmetics and packaging sectors.

# Paper industry applications

Due to the wide range of grades and versatility, Kuraray Poval™ and Exceval™ are being used to increase the funktionality of a number of specialty papers.

- Coated Papers
- Paperboard
- Banknote Paper
- Silicone Release Liner
- Food Wrapping paper
- Inkjet Paper
- Thermal Paper
- Carbonless Paper

## Basic property of Kuraray Poval™ and Exceval™ for paper applications

Kuraray has the widest range of PVOH grades available. Conventional Kuraray Poval™ grades are mainly characterized by their molecular weight (measured as solution viscosity) and degree of hydrolysis.



Low	Water resistance	High
	Gas Barrier	High
High	Surface Tension	
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High	Solubility	
Low	Film Strength	High
	Viscosity	High

Increasing molecular weight (degree of Polymerization)

## Kuraray Poval™ & Exceval™

# Bright ideas for paper applications

In graphical paper grades our products play an important role as carriers for optical brighteners in line with the trend toward enhanced paper whiteness. Simultaneously, they serve as thickening and water retention aid for better productivity.

Owing to the insolubility of polyvinyl alcohol in non aqueous solvents, Kuraray Poval™ and Exceval™ grades are ideal for forming barrier coatings, e. g. barrier for silicone oil, grease, oil, oxygen or against migration of mineral oil. In other sectors Kuraray Poval™ are utilized as powerful binders to produce matt, glossy or high speed industrial inkjet papers. Also Kuraray Poval™ and Exceval™ are used as dispersing agent, binder and top coating in thermal papers.



Exceval™ is Ethylene modified PVOH, which enhances water resistance and film forming performance beyond that of conventional PVOH resins for coated papers. Additionally, Kuraray offers various other functionally modified PVOH grades which which meet the requirements of each special paper application.



# Adding value to your products worldwide

Kuraray Poval™, Exceval™, Elvanol™ and Mowiflex™ are the trademarks for polyvinyl alcohols made by Kuraray. Their key characteristics — outstanding film-forming properties and high binding strength — add real value to your products. Our polymers are water-soluble, highly reactive, crosslinkable and foamable. They have high pigment binding capacity, protective colloid characteristics and thickening effects. The physical and chemical properties of Kuraray Poval™ make it ideal for a wide variety of applications, ranging from adhesives thr<mark>ough paper and ceramics</mark> to packaging films. Many of our polymers are food contact-approved and thus suitable for food applications. Ecologically Kuraray Poval™ is advantageous due to its biodegradability and the fact that combustion does not generate residues. It is available in various particle sizes from granules to fine powders.

Kuraray produces its wide range of Kuraray Poval™ grades in Japan, Singapore, Germany and the USA. Kuraray's global production and service network make us your partner of choice for innovative high-quality PVOH resins.

Kuraray - Here to Innovate.

## **kura**ray

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# Kuraray Poval™ product portfolio

Please contact your local Kuraray office to discuss the right Kuraray product for your needs.

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